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Message of President Thomas A. Smyth

1911

The Sanitary District of Chicago

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MESSAGE OF THOMAS A. SMYTH, PRESIDENT OF THE BOARD OF TRUSTEES OF THE SANITARY DISTRICT OF CHICAGO, PRESENTED AND READ TO THE BOARD OF TRUSTEES OF THE SANITARY DISTRICT OF CHICAGO, AT A REGULAR MEETING ON THE FOURTH DAY OF JANUARY, NINETEEN HUNDRED TWELVE

THOMAS A. SMYTH, President

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Clerk

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Treasurer

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Mgr. Real Estate Dept.

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EXPLANATION

From the organization of the Sanitary District of Chicago twenty-two years ago the President of the Board of Trustees has, at the end of each year, prepared and read an annual message in which is set forth in review the events of the year, together with suggestions respecting the policy of the Board. Such messages have invariably been printed in the proceedings, and a pamphlet edition thereof published as a Year Book for the information of the taxpayers.

Following this time-honored custom, and in the discharge of my duty, my annual message for 1911 was prepared and read to the Board of Trustees on January 4, 1912. As this was my first annual message and the first year of the fifth administrative regime of the Board, it seemed eminently proper to review briefly the acts and the policies of the four earlier Boards and their interpretation of the organic law, to note certain resulting conditions and embarrassments, to make certain suggestions for immediate consideration and action, and to recommend policies for the guidance of the Board during my administrative term.

The customary motion to print the message in the proceedings and publish a pamphlet edition for public circulation was lost and the message laid on the table. At the next regular meeting on January 11, 1912, the message was taken from the table and the motion to print renewed and again lost, and the message was referred to the Finance Committee. At the regular meeting on February 1, a motion was made to discharge the Finance Committee from further consideration and return the message to the Board, and this was lost. In view of the foregoing I am persuaded that the Board does not intend that my message shall appear in the official proceedings, and does not intend that the public shall have the opportunity to read and study the same. I am therefore constrained to print and circulate the message at my own expense.

The right to an individual opinion and to have the same recorded in the official proceedings has always been recognized by the Board, and such right was actually exercised by individual trustees upon the several dates above referred to. By what rule such right is denied to the President of the Board and to a formal and responsible official communication has not been made clear. My predecessor prepared very elaborate and profusely illustrated messages and indulged in most

unsparing criticism, and these messages were published in editions of ten thousand and *editions de luxe bound in Morocco were issued.*

The Board of Trustees, as now constituted, consists of five Republicans, one Independent Republican and three Democrats, including the President. The terms of three Republicans expire in December, 1912, and their successors are to be elected at the November election. The terms of two Republicans and one Independent Republican expire in December, 1914. The three Democrats, including the President, were elected in November, 1910, took office in December, 1910, and their terms expire in December, 1916. It will thus be seen that the five Republicans and one Independent Republican hold over from the preceding administration presided over by Robert R. McCormick. The five hold-over Republicans have acted as a unit along strictly party lines and have endeavored to perpetuate policies of the former Board and conduct the administration of the present one.

The law vests in the President administrative functions, and the duty of reviewing the acts of the Board and vetoing the same if they do not meet his approval. The veto of the President cannot be set aside except by a vote of two-thirds, or six members. It follows, therefore, that the attempt of a bare majority of five members to run the affairs of the Sanitary District independent of the President is a bald usurpation, and can have no legal value. The election of my colleagues and of myself as President is the last expression on issues fully canvassed before the people, and I cannot be disloyal to the policies thus endorsed, and it ill becomes a bare partisan majority, without the legal powers, to insist on a reactionary course.

The message stands on its merits and speaks for itself. I have nothing to add by way of comment or review except to call attention to one fact which fully justifies certain strictures. The so-called report of the chief engineer, acting as a member of a Commission, to report on methods of sewage disposal other than by dilution, has no legal or official standing, and yet it has been circulated broadcast as an official document of the Board. The use which is being made of this document at the present time by enemies of the District, and to force policies upon the District which are not within its legal power, and which may involve the people in enormous further expense, would be sufficiently embarrassing in itself; but when the matter is being taken up at the national capitol to justify the refusal of the water rights underlying our whole investment, the situation has become intolerable. There was no occasion, even if we had the right, to question the integrity of the solution upon which the organic law was framed; but as the subject

matter has been raised, I have recently appointed a legal and responsible Commission to consider the subject.

I ask the candid reader to carefully study the text of the message and to consider whether the language is not dignified and respectful, and without unnecessary criticism or reflection on former acts of the Board and its members other than is conveyed by the bare recital of facts of common knowledge. I ask him to consider further whether in view of the purposes of the law and the history of its execution it was not my duty to call the attention of the Board to certain obvious derelictions, and recommend remedial measures and define what in my opinion should be the policy of the Board during my administration. If I have not acted fully within my rights and according to my clear duty, I wish to know it, and I will thank any reader if he will advise me wherein I have committed any error.

I, therefore, most respectfully dedicate this document to the public and hope for its most careful consideration.

THOMAS A. SMYTH, President.

Message

Chicago, January 4, 1912.

To the Honorable the Board of Trustees of the Sanitary District of Chicago.

Gentlemen: In this, my first message to your honorable body, I feel justified in reviewing to a considerable extent the affairs of this District, and will present them to you in the following order:

FINANCES.

During the fiscal year just closed the Board successfully financed two issues of bonds. The first issue, that of January 1, 1911, of the face value of $1,000,000, netted the District the sum of $992,288. The second, that of September 1, 1911, of a similar face value, realized the sum of $994,655. The latter sale of bonds realized the highest price the District has sold its bonds for since January 1, 1909, and demonstrates that the great financial houses of the country are satisfied with the management of the affairs of the District, and that it can readily market its bonds to equally satisfy the public.

The revenues of the District for the ensuing year will be largely provided for by moneys raised by taxation. Bonds and accrued interest which mature during that period will be paid from such sources, and the funds received will be used for the general corporate purposes of the District.

The District is now approaching the actual work of building the Calumet-Sag Channel. The magnitude of the work is little understood by the general public, the cost of the improvement being estimated by our engineering department at $7,000,000. The cost of the necessary right-of-way, building the railroad and highway bridges in connection with the construction of said channel, and to contractors for excavation and necessary work in connection therewith, will in part be met by the issue of bonds, following the settled policy of the District. The improvement not only being for the present, but for future generations, the payment thereof may be well spread over a considerable period of time.

ENGINEERING DEPARTMENT.

During the past year the engineering department has performed but little construction work. The finishing touches have been given to the Sheridan road bridge and the Wilmette pumping station. The

bridge department has been engaged in anchoring the abutments to the Western avenue bridge, repairing the concrete walls of the main channel near Lockport, and equipping the lock gates at Lockport with new operating struts.

On the Calumet-Sag Channel, the situation at all railroad crossings has been studied, designs for bridges prepared and the cost of the work estimated, in order to obtain the most advantageous terms possible from the railroad companies. Similar work has been done with reference to highway bridges, and the supplemental work of obtaining agreements with municipal authorities.

Some progress has been made in widening the South Branch of the Chicago River and building docks, as hereinafter referred to. Also, outline plans have been prepared for bridges across the river at Jackson boulevard and Twelfth street.

Plans and specifications for three of the contract sections of the Calumet Channel have been prepared, and contracts have been let for constructing two sections at satisfactory prices. In the coming year the activities of the engineering department should be increased, as contracts should be let for all classes of work on this channel.

I recommend that the disposition shown to do work involving an expenditure of more than $500 by the engineering department for the purchase of material and the employment of men, without previous advertising and affording an opportunity for competitive bidding, be entirely dispensed with, as, in my opinion, it is contrary to the letter and spirit of the organic act of this District.

NORTH SHORE CHANNEL.

But little work remains to be done to complete the North Shore channel and pumping station. This station is combined with the Sheridan road bridge in an artistic manner, and the surroundings are being given a park effect.

Permanent monuments are now being placed to mark the boundaries of the right-of-way of this channel, and the work should be completed as soon as possible.

The purpose of constructing this channel was to further aid in keeping the water supply of the people of the District pure and undefiled by affording an outlet for the sewage of the large territory between the city limits and Lake County, which could not be served by intercepting sewers emptying into the Lawrence avenue conduit. This territory contains the city of Evanston and several towns and villages

along the lake shore. West of what is termed the "Skokie Marsh" are also situated a number of small municipalities.

The conditions produced by the North Shore Channel are not satisfactory. It appears from reports made to me that the flow of water in the North Shore Channel is not sufficient to properly dilute the sewage discharged into the North Branch. It appears further that work still remains to be done in completing said channel, dredging the north branch, and I recommend that this matter be given proper consideration by the Board as early as possible.

CHICAGO RIVER AND MAIN CHANNEL.

The work of widening the Chicago River to a uniform width of 200 feet and a central depth of 26 feet, has continued. The Chicago Great Western property has been secured, and the river work completed at that locality. Suits have been entered for the condemnation of the projection of the power station of the Commonwealth Edison Company into the river south of Van Buren street.

The principal work yet remaining is the stretch covered by the three bridges at Jackson boulevard, the Metropolitan Elevated Railway and Van Buren street, which are so close together that they must be treated as a whole. Certain action has been initiated before the Secretary of War for the removal of the Metropolitan "L" bridge, but this has been conditioned upon the preparation of the approaches by the Sanitary District, which work has been performed, and further action is now expected from the Secretary of War which will lead to the clearing up of this locality in the early future.

Some six years ago the Sanitary District condemned and paid for the property necessary to widen the river between Madison and Van Buren streets at a cost of $1,389,940. This property has remained in the possession of the Pennsylvania Company. The District should take possession of its property and complete the widening of the river forthwith, and this will make more evident the remaining obstruction of the three bridges below, and conform more fully to the suggestion of the Secretary of War.

ELECTRICAL DEPARTMENT.

Acting in conformity with the statute amendatory of the act creating the Sanitary District of Chicago, a water power development was made at a point below Lockport, with a view of utilizing the energy produced by the construction of the Sanitary District Channel. The work has been completed at a very considerable expense and the

District is now engaged in supplying power to municipalities as well as for commercial purposes. Whether or not the electrical energy developed at the power house is a valuable financial asset to the Sanitary District of Chicago, appears to be a somewhat debatable question. The report of the electrical department would indicate that the District was making a profit upon its investment, while a certain portion of the public appears to seriously question the proposition as to whether or not the installation of the power house, dam, and its equipment of electrical machinery, is a valuable asset to the District or not. I therefore recommend that a careful examination be made of the cost of installing the plant, including its entire equipment, charging the cost, with the customary amount of interest upon the investment, together with the cost of operation and depreciation, as against its earnings, and if it be true that it is a paying investment, the public ought to be advised of that fact, and it ought not to be a question of dispute, because it is clearly a matter of mathematical determination.

LEGAL DEPARTMENT.

The legal department has been engaged constantly in litigation in which the Sanitary District was interested. Its work has extended to legal questions between the Sanitary District and the United States Government, and various municipalities and individuals. The important questions committed to that department are diversified, and require constant and close application, as well as ability, in order to safeguard the interests of the District.

The pending litigation of the United States *v.* The Sanitary District, to enjoin it from taking water by way of the Calumet River is now at issue, as reported to me. It involves the important question of the right of the Sanitary District to connect the Calumet-Sag Channel with the Calumet River, and thereby draw sufficient water from Lake Michigan through the Calumet River to dilute the sewage of the District affected by the construction of the Calumet-Sag feeder; and incidentally it involves the right of the State of Illinois or the agencies of the State to draw water from Lake Michigan for any purpose without the consent of the general government. The outcome of this suit is of interest to the people of all the states bordering on the Great Lakes, as well as the Canadian Government.

The case of Joseph J. Duffy *v.* The District, for an accounting, is still unfinished. A large amount of testimony has been taken in the case. The entire time and energy of one attorney in the employ of this District has been devoted to that case for about three years. It

is incomprehensible to me why so much time is necessary to bring that case to trial and obtain the judgment of the court in which it is pending. It is to be sincerely hoped that that litigation will be terminated in the very near future.

The industry of a Chicago lawyer has resulted in the commencement of thirty-six lawsuits against this District for overflow in the counties of Cass, Brown, Schuyler and Mason. The suits referred to were commenced in the Circuit and Superior Courts of this county.

What was regarded as a test case was tried in the Superior Court of Cook county within the last year, and resulted in a verdict and judgment against the District for a sum exceeding $6,000, together with $3,000 attorney's fees. The case was appealed by the District to the Appellate Court of the First District, and by that court, for want of jurisdiction, transferred to the Supreme Court, in which last-named court it was decided within the last month, the decision being adverse to the Sanitary District. The case is of far-reaching consequences, and seriously affects the liability of the Sanitary District for damages by reason of overflow along the banks of the Illinois River.

I cannot forbear at this time comment upon the case, aside from its legal aspect. Express power was granted to the Sanitary District by its organic act to remove the dams at Henry and Copperas Creek in the Illinois River before any water should be turned into its channel. It undertook to exercise and avail itself of that power, but the Supreme Court, in the case of Canal Commissioners *v.* Sanitary District of Chicago, 184 Illinois, 597, denied the right of the Sanitary District to remove the obstructions which the Legislature, in express terms had authorized it to remove from the river before the waters of the Sanitary District were turned into its channel. The result of such obstructions remaining in the Illinois River had the effect of unduly elevating the waters of the river, which numerous landowners claimed greatly damaged their lands, and resulted in a number of lawsuits, most, or nearly all of which, were decided adverse to the Sanitary District.

The dams in the Illinois River at LaGrange and Kampsville, placed there by the Federal Government, in like manner are obstructions, and heretofore have caused overflow, and now largely contribute to the overflow of lands along the banks of the Illinois River. And yet, in the case of Jones *v.* The Sanitary District, this District has been held liable for all damages occasioned by overflow of any lands bordering the Illinois River, and that, too, without reference to what time the damages complained of were occasioned.

The Supreme Court has also held in the Jones case that even though the owners of property bordering on the Illinois River took no action of any kind whatever to assert their rights—as in the Jones case, for more than seven years after the Sanitary District had opened its channel and continued it in use—that time would not bar the right of action of the property owners against the Sanitary District.

It seems to me (a layman) that the decisions of the Supreme Court concerning the rights of the Sanitary District to discharge its waters into the Illinois River, and the resulting damage, if any, therefrom, are in a measure inconsistent. In the first place, the Supreme Court denied the Sanitary District the right to remove obstructions in the river; and in the Jones case it holds the Sanitary District liable for damages indefinitely. The decision in the Jones case has practically eliminated the defense of the five-year statute of limitations, and has placed the District at the mercy of property owners who own property along the Illinois River.

Had the suit been commenced within a reasonable time, the District would have been in a position to obtain witnesses whose recollection would aid them in fixing the elevation of the flood waters in the river, as well also as the ordinary condition of the water in the river. In addition to that, the Sanitary District had a large force of engineers who observed conditions in the river for a number of years before the waters were turned in to the Desplaines River through the channel of the Sanitary District. Many of these engineers, as well as other witnesses, have either died or removed to places beyond the jurisdiction of the courts of Illinois, or in fact, to places where no reasonable effort on the part of the Sanitary District could locate them. If suits had been brought by parties claiming that their properties were injured by reason of overflow within a reasonable time after the waters had been discharged into the Desplaines and Illinois rivers through the channel of the Sanitary District, the memory of witnesses then living, who were familiar with the conditions of the river, as well as the knowledge of engineers and others in the employ of the District, would be of great aid to the District in ascertaining and determining what injury, if any, the waters discharged into the channel of the Sanitary District caused or produced to lands bordering upon the rivers last mentioned. But after the lapse of so many years, no woodman could tell how long a tree had been dead, or, in fact, what, if anything, caused or produced the destruction of the tree.

In the long interval between the date of the opening of the Sanitary District Channel and the present time, there has been a great

development in the drainage of upland swamps, and the straightening of their outlets to the Illinois River, thereby bringing floods more rapidly, and accentuating local conditions. There have also been organized within the Illinois Valley twenty-three levee and drainage districts, which embrace 150,000 acres, or nearly half of the lands subject to overflow between Utica and Grafton, and the construction of levees to enclose this large proportion of the overflow area has a most profound effect upon the flood stages of water in the river. Delays in bringing action make it impossible to determine whether the effects have been most largely produced by the flow from the Sanitary District, or by the drainage and reclamation of lands in and out of the valley.

Assuming that the decision of the Supreme Court is final in the premises, the question arises as to the further course of the District. The court seems to suggest that the District has not prepared the river in advance for the additional flow of water, and this clearly indicates a policy which requires the removal of the dams built by the state at Henry and Copperas Creek, and those built by the Government at LaGrange and Kampsville, and the deepening of the river by dredging.

Such a policy requires a flow of water that will produce navigation without the aid of the dams, and it requires further such action by the state and by the United States as will permit the removal of the dams when no longer necessary for navigation; and such removal should be followed up by appropriations from the Congress of the United States for the systematic improvement of the Illinois River below Utica by dredging. In other words, if we are to free ourselves from continuing liability under this recent decision, we must procure such improvement of the river as will care for all the water that may be supplied by the Sanitary District, and, in addition thereto, be sufficient for all the changes in conditions produced by the reclamation of both uplands and lowlands. It is a matter in which the District should have the co-operation of the state, and of all interested in the reclamation of lands, as well as in the development of navigation.

That such co-operation is reasonably certain, I cite the following from the President's message to the Congress of the United States, under date of December 21, 1911.

"The project for a navigable waterway from Lake Michigan to the mouth of the Illinois River, and thence via the Mississippi to the Gulf of Mexico, is one of national importance. In view of the work already accomplished by the Sanitary District of Chicago, an agency of the State of Illinois, which has already constructed the most diffi-

cult and costly stretch of this waterway and made it an asset of the nation, and in view of the fact that the people of Illinois have authorized the expenditure of $20,000,000 to carry this waterway 62 miles farther to Utica, I feel that it is fitting that this work should be supplemented by the Government, and that the expenditures recommended by the special board of engineers on the waterway from Utica to the mouth of the Illinois River be made upon lines which, while providing a waterway for the nation, should otherwise benefit that state to the fullest extent. I recommend that the term of service of said special board of engineers be continued, and that it be empowered to re-open the question of the treatment of the lower Illinois River, and to negotiate with a properly constituted commission representing the State of Illinois, and to agree upon a plan for the improvement of the lower Illinois River and upon the extent to which the United States may properly co-operate with the State of Illinois in securing the construction of a navigable waterway from Lockport to the mouth of the Illinois River in conjunction with the development of water power by the State between Lockport and Utica."

I wish to recall briefly the leading facts in the history of the Sanitary District, and draw therefrom certain inferences, which should guide our future policy.

The great summer rain of August, 1885, led to public discussion and official investigation, which resulted in certain sanitary and waterway legislation by the General Assembly of 1889. This legislation, with incidental amendments since, provided for the construction of a main channel or outlet, the water in which, and in the river below, was to be maintained free from offence, the volume in no event to be less than 20,000 cubic feet per minute for each 100,000 of population. The main channel was to have a capacity of not less than 600,000 cubic feet per minute in the rock, and not less than half this volume in the earth, such earth channel to be enlarged progressively with the growth of population above 1,500,000. The Sanitary District was given authority to construct adjuncts to its main channel, and incidentally to develop dockage thereon and utilize the water power at the end of same at Lockport.

The District was authorized to remove obstructions in the Desplaines and Illinois rivers, and especially charged with the removal of the state dams at Henry and Copperas Creek. The Assembly also passed a supplemental act respecting these dams. The main channel was to have certain specified dimensions, was to be equipped with movable bridges, was to be a navigable stream, and was to pass to the

control of the general government for navigation purposes, when the stream below should be improved, and in such event the main channel was to be completed within one year thereafter. The General Assembly passed a joint resolution declaring the policy of the state for a deep waterway, and asked the co-operation of the general government in the development of such deep waterway by means of an open channel without obstructing dams in the lower Illinois River between Utica and the Mississippi, and with the aid of a large water supply from Lake Michigan. The General Assembly again, in 1907, submitted the Constitutional Amendment voted by the people in November, 1906, authorizing the expenditure of $20,000,000 on the deep waterway in the valley between the end of the main channel at Lockport and Utica, with incidental water power to be produced by a large flow of water from Lake Michigan.

It will thus be seen that the policy of the State of Illinois, as expressed by the General Assembly, in the Sanitary District Act and collateral legislation, is a combined policy of sanitation and deep waterway, both of which require a large volume of water, and this fact is of first importance in justifying the use of the waters of the great lakes.

Work on the main channel began in September, 1892, and at the end of the first term of the Board of Trustees, in December, 1895, the President stated that three-fourths of the excavation had been made. The second Board finished the work, and improved the Chicago River, and the Desplaines River at Joliet, and opened the main channel in January, 1900, under a Federal permit for 300,000 cubic feet of water per minute. This main channel had a flowing capacity of 840,000 cubic feet of water per minute, or 40 per cent. more than the minimum stipulated by law, and it had a depth of twenty-four feet, all at low water of Lake Michigan. Less than eight miles of the main channel, in the earth between Summit and Robey street, had a provisional width ninety feet less than the standard earth section, and a flowing capacity of about 60 per cent. of that of the completed channel, this being the part subject to enlargement with the growth of population.

It turned out, however, that the Chicago River improvement was less efficient than anticipated by the engineering department, and the Federal permit was amended in the interest of navigation in the Chicago River so as to reduce the flow to 250,000 feet per minute, in January, 1901. The third Board of Trustees considered it a primary duty to establish and maintain the proper flow in the channel, and obtained additional authority from the Legislature in 1901, and by

the end of its term in December, 1905, had completed about three-fourths of the Chicago River improvement on a project for a width of 200 feet, and a central depth of 26 feet. This Board and its predecessor entered into co-operation with the city respecting the Lawrence avenue conduit for the circulation of the waters of the North Branch, and the Thirty-ninth street conduit, to circulate the waters of the South Fork, and supplement the flow through the Chicago River. This Board also secured from the Assembly, in 1903, a special tax limit for three years for the purpose of extending the channel and developing the water power at Lockport, and had performed a large part of this work by the end of its term.

The fourth Board took office in December, 1905, and was elected under an amendment to the law, which changed the non-partisan, or bi-partisan character of the Board. This Board took a year or two for deliberation, and then devoted its attention chiefly to the adjuncts and incidental enterprises. It completed the water power development at Lockport. It opened the Evanston channel to the North Branch, which is not yet completed and is reported to be insufficient to maintain a proper condition in the North Branch. The Lawrence avenue, and the Thirty-ninth street conduits were opened during its term. The Chicago River improvement has made relatively little progress, and is not yet completed. At its request the Secretary of War enjoined the taking of water from the Calumet River by way of the proposed Sag Channel. The International Commission recommended that the flow be limited to 10,000 feet at Chicago, and later the Secretary of War refused to permit, without the sanction of Congress, a greater flow than 250,000 cubic feet per minute by way of the Chicago River or by way of the Chicago River and Calumet River in combination. The bridges on the main channel were not swung as required by law. The channel itself was unchanged above the controlling works, and no additional volume was added thereto except what might pass through the Thirty-ninth street conduit, and the limit of flow remained the same, although eleven years had elapsed since the opening of the channel.

Notwithstanding the negative results of the fourth Board, the force of employes was increased enormously, and the scale of expenditures was maintained. The engineering and law departments seem to accept the limitation of 10,000 feet per second as a basis for recommending the adoption of other plans of sanitation than those authorized by law. The deficiency in the supply of water has occasioned deposits of sludge in the main channel, and produced a critical sanitary condition in the channel and in the river, as far down as Marseilles.

I wish to call your attention to a number of propositions, and recommend specifically as follows:

1. The obvious and most immediate duty of the Sanitary District is to send through its main channel, as speedily as possible, the volume of water required by law, and the District should forthwith apply every resource necessary to this end. To accomplish this the main channel must be cleared of its sludge deposits, and the channel of the Chicago River must be completed, even though we adopt expedients at the bridges yet to be built in order to save delay. If practicable bridge plans should be revised, and the sites improved where bridges have already been built, so as to make the river more efficient, and enable it to carry the maximum volume of water without undue injury to navigation.

There has been no increase in the official volume of water since the channel was opened, twelve years ago, but there has been a large increase in population, and a still larger increase in sewage due to the circulation of the south fork, and the more active circulation of the north branch upon which the trade wastes are largely concentrated. The need for more water should have been anticipated and provided before these additional and special burdens were added to the channel. A deficient current is largely responsible for the sludge deposits in the main channel, and a deficient volume is responsible for the bad condition in the main channel and in the river as far down as Marseilles, as reported by the engineering department for the past summer.

2. The work above referred to will not provide the volume of water required by the population of the District at the census of 1930, and the District should proceed diligently in the completion of its main channel and providing the water therefor in order that it shall not again be deficient in the primary requirements of the law. This means the excavation of a strip of clay ninety feet wide and less than eight miles long between Summit and Robey street, and the further enlargement of the Chicago River in whole or in part with adjuncts, so as to provide the full volume of water for which said channel was laid out and built.

It is a mistake to assume that the Calumet Channel is to furnish additional water for dilution, and thus relieve the Chicago Channel. The Calumet Channel will have a load of its own to care for, and it is the obvious intent of the law to provide an inoffensive condition at Chicago, a matter that is sufficiently emphasized by the conditions disclosed in the recent report of the engineering department.

3. The failure of the District to provide for or procure the

removal of the dams in the Illinois River between Utica and the mouth, and to give the stream a greater capacity by deepening, has brought about vexatious and expensive litigation. The courts denied to the District the right to remove the state dams at Henry and Copperas Creek until the volume of water should be sufficient to produce an equivalent navigation. The completion of the Chicago River improvement under Proposition 1, will provide the necessary volume of water, and this should be anticipated by definite arrangements for the removal of the two state dams, and also for the removal of the two federal dams at LaGrange and Kampsville, to be followed by the improvement of the river by dredging. This matter was all anticipated and provided for in the original Sanitary District Act and supplemental legislation, so far as lay within the power of the General Assembly.

The state as a prospective proprietor of water power has the same direct interest as the Sanitary District in providing for a large flow of water. The reclamation of the valley lands is now actively in progress, and these interests are directly and vitally concerned in the removal of the dams, and in a deeper and more capacious channel. The people of the entire Mississippi valley are united in a movement for deep water between Lake Michigan and the Gulf of Mexico. In the message of December 21, 1911, the President of the United States recognizes that the Sanitary District and the State of Illinois are entitled to equitable consideration by the general government in the improvement of the lower Illinois River. The time is peculiarly auspicious for the Sanitary District to unite and co-operate with all these forces in the solution of one of its most vital problems.

4. Deleterious trade wastes that poison the waters and interfere with normal decomposition should be rigidly excluded from the channel. Special study should be given to concentrated effluence from industries with a view of limiting such contributions and producing economic by-products. Great progress in saving such trade wastes has been made in the past, and it is believed that a systematic effort on the part of the District and the city will greatly reduce these wastes. I do not favor applying drastic remedies to the great industries, which have had so much to do with the welfare of this city, until the necessity shall clearly appear, and before doing so I wish to be advised as to our authority, as distinguished from that of the city and the state.

Meantime, I am of the opinion that the experimental station at Thirty-ninth street should be continued, and that it should devote its attention particularly to this question of trade wastes, in order that the District may encourage industrial establishments to dispose of their

wastes along rational lines, before taking more radical measures, if they shall be justified.

5. The engineering department reports unwholesome conditions in the north branch, and that the combined capacity of Lawrence avenue conduit and the Evanston Channel is insufficient to remedy the same, and suggests expedients in the way of intercepting sewers and sewage treatment. It appears to me that if the Evanston Channel is insufficient to accomplish its purpose that it should be enlarged, and the cost of expedients applied thereto. This is a matter which should be taken up by the Board, and provided for when the other and more primary work of the District is disposed of.

A serious typhoid fever epidemic has recently developed at Evanston and other north shore suburbs, wihch is ascribed to local pollution of the lake in the vicinity of the water intakes of these municipalities. In addition to circulating the waters of the north branch, the North Shore Channel is intended to furnish an outlet for the sewage of the towns within the District, and north of the city limits. These towns have not yet taken measures for connecting their sewage systems to this channel, and a disposition is evinced in some quarters to force this obligation upon the District.

It is well to recall in this connection that the whole subject matter was once decided, when the City of Chicago undertook to construct the intercepting sewer system along the lake front from Eighty-seventh street to the northern city limits, and from the course taken at that time, the power of the District to undertake such work is not evident. I have referred later, under Proposition 8, to a legal opinion which covers the case in point. It is a matter which should be settled at once, in order that the North Shore towns may know definitely and finally their responsibilities in the premises, and prepare to utilize the outlet which has been provided by the Sanitary District at large cost. Personally, I am disposed to co-operate with these municipalities in the solution of their problems, and as President of the Board I shall be glad to lend my aid as far as the District may lawfully apply its resources in this direction.

6. The District finds itself in a most extraordinary position in respect to the Calumet-Sag Channel. In 1907 the Board of Trustees, through its President and the Governor of the State, solicited the Secretary of War to enjoin the construction of such a channel, and the taking of water through and from the Calumet River, for the purpose of testing the right of the United States to interfere in the premises. If this course had any merit it should have been pushed to

an early conclusion, but I understand that the law department has not yet concluded the case and has made no progress for the past year and a half. Meantime a qualified permit has been obtained from the Secretary of War for a channel with a capacity of 2,000 feet, provided the aggregate flow in such channel, and in the main channel from the Chicago River, shall not exceed the 250,000 feet per minute now allowed to the Chicago River, and provided further that such a permit shall in no wise prejudice the pending case.

We have been purchasing right-of-way and letting contracts for the Calumet Canal, which is in this very doubtful legal position. It appears further that if the flow of water now permitted is inadequate, as shown by the reports of the engineering department, that there is no water available to divide with the Calumet. The whole situation is anomalous. This suit should be pushed to immediate determination, or if a different course is to be pursued it should be decided upon and followed up at once.

7. Our relations with the Calumet and lake shore territory, east of the state line, in Indiana, were given some consideration by the earlier boards. For some years past this region has been growing rapidly, and the District should determine upon the policy which is to govern its relations, at an early date. The doctrine laid down by the Supreme Court in the case of the State of Missouri *v.* The State of Illinois and the Sanitary District of Chicago clearly points out our remedy against abuse, but at best court redress is a poor substitute for an amicable understanding. Any joint arrangement that is to operate across state lines is liable to be unsatisfactory, and I favor divorcing the problems at the state line if that is feasible. Steps should be instituted at an early day for the purpose of arriving at an understanding through the proper agencies of the State of Illinois and the State of Indiana.

8. The engineering department has made an elaborate report, based on the assumption that the Sanitary District is to be limited to a flow of 10,000 cubic feet per second, or 600,000 cubic feet per minute, which is to be exhausted on or about 1922 on a population limit of 3,000,000, and that, therefore, we should enter at once upon a program of artificial treatment of sewage, both domestic and trade wastes, in preparation for this contingency. The assumption of such limit of flow I regard as gratuitous, for reasons hereinafter stated. I am of the opinion that such a program is not within the legal power or proper province of the District, even if it were justifiable. In this connection I recall to the attention of the Board an opinion from the General

Counsel of the District, John P. Wilson, filed August 2, 1895 (page 2762 of Proceedings), which defined the respective duties and powers of the Sanitary District, respecting the intercepting sewer system, since built by the city along the lake shore from Eighty-seventh street to the northern city limits.

I regard the artificial treatment of sewage as still in the experimental stage, nearly as much so as when the Drainage and Water Supply Commission reported in 1887. The alternative methods then urged have not made good in actual practice, and the dilution method is now better received. In my opinion it is unnecessary for the District to entertain propositions that are costly to operate and maintain, and that involve more solicitude in management than our governmental methods permit. Furthermore, I am reminded that the whole subject matter was up in connection with the Calumet region as a result of the suggestions of the International Commission in its report of 1907, and that the engineering department gave two years' consideration, with the aid of experts, and rejected a program of treatment in favor of the Calumet Canal and intercepting sewers. I am aware of no change in conditions or additional light in the premises. I trust that any program of artificial treatment will be dismissed, except so far as it may relate to trade wastes, and except so far as municipalities, in the discharge of their proper functions, may choose to employ such methods for reasons of their own.

9. I am of opinion that the presumption that our water supply is to be limited to 10,000 cubic feet per second or 600,000 cubic feet per minute is gratuitous and mischievous and should not be voiced by officials of this District. I believe that we shall have the volume requisite to our needs as they appear and are justified. The first three Boards proceeded on this assumption and met no official obstruction, and I think we should proceed on the same theory.

A channel was actually constructed for a capacity of 14,000 cubic feet per second, or 840,000 cubic feet per minute, except the limited strip of clay between Summit and Robey street, and such channel is adequate for a population of 4,200,000 people, or probably for more than thirty years to come. The Calumet Canal can be carried on an independent course to Lockport, and the combined capacity would be adequate to 4,600,000 people, and this certainly will provide for a reasonable future growth.

The need of this large volume of water for the sanitation of Chicago and of the Illinois valley, and in the waterway and water power program of the state, is apparent, but these needs are compara-

tively local and private in contrast with the necessity for large volumes of water in the development of a deep waterway to the Gulf.

Under the recent policy of conservation there is no reason why the natural reservoirs of the Great Lakes should not be used to any justifiable limit, provided lake levels are properly maintained in the interest of navigation, and I believe resistance to the taking of any sufficient and proper volume of water will disappear when the remedy for any damage is made apparent.

No fact of the early future is more apparent to my mind than the actual development of a deep waterway to the Gulf of Mexico, and this will come in ample time to provide for our necessities, even should divided counsels prevail as to those necessities, on sanitary and water power grounds.

10. I believe the Sanitary District should set itself vigorously in accord with all the forces that are concerning themselves with conservation and navigation between the lakes and the gulf, and should so plan and carry out its works as to contribute as much as possible to those broad purposes, and as a special evidence of good faith it should complete its program of movable bridges on the main channel. Without question, this is the spirit of the organic law, and the theory of all collateral legislation of the General Assembly of Illinois, and our earlier Boards of Trustees directed their efforts along these lines, and the people were well satisfied. I think we will do well if we revert to the original spirit of those earlier Boards, and devote ourselves assiduously to the clear purposes of the original law, and not seek to enlarge and magnify our powers. In such manner there is ample use for all the funds that the District will have available for some years to come.

Respectfully submitted,

Thomas A Smyth

President.

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